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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/836,792

Filing Date: April 17, 2001

Appellant(s): MUHONEN, AHTI

Geza C. Ziegler, Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on October 17, 2007 appealing from the Office action mailed November 21, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

GB 2 294 844	Van Den Heuvel	05-1996
US 6,546,246	Bridges et al.	04-2003
US RE38787	Sainton	08-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over van den Heuvel, et al. (GB2294844A) in view of Bridges et al. (US006546246B1) and further in view of Sainton et al (US00RE38787E).

Regarding claim 1, Van den Heuvel, et al. discloses a communications operating system where a subscriber unit 20 for use in a communications system 19 may be used in multiple different available systems (see figure 1 and page 3, lines 31-34), which reads on the claimed "mobile station, configured for use as a software radio having the capability for universal adaptive use within globally dispersed cellular communication networks". Once the unit has accessed the channel of the common communication system, it receives an indication of available communication systems (see page 4, lines 14-18), which reads on the claimed "transceiver for receiving data over a common system parameter channel" and this information may provide details such as features available (see page 4, lines 18-20), which reads on the claimed "processor for compiling and storing network characteristic data relating to said globally dispersed cellular communication networks, received over said common system parameter channel, relating to the operational capabilities of said cellular networks". Furthermore, the system uses a matrix having features cross-referenced by subscriber unit capabilities, which reads on the claimed "combining said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities". The system disclosed by van den Heuvel, et al. fails to teach that the subscriber unit will store identification information.

In a similar field of endeavor, Bridges et al discloses a system with over the air programming where a mobile station 68 is provided with a memory device 67 for storing a Preferred System Identification List and/or Intelligent Roaming Database that indicates the band or bands where a mobile station may find a preferred system when

roaming, including the system ID or system operator code corresponding to the wireless carrier the mobile station should use for wireless communication in order to obtain the services required by the subscriber (see column 9, lines 61-66), which reads on the claimed "processor for compiling and storing subscriber identification data relating to the operational capabilities of said mobile station".

It would have been obvious to one skilled in the art at the time of the invention to modify van den Heuvel, et al. with Bridges, et al. to include the above memory that stores information relating to the identification and operational of the station in order to allow the mobile station to obtain service on the cellular network with which the home cellular service provider has the best roaming agreement, and/or which supports the services the user requires as suggested by Bridges, et al. (see Bridges, et al. column 4, lines 39-51). The combination of van den Heuvel et al and Bridges et al fails to disclose receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system and that the compilation occurs at the mobile station.

In a similar field of endeavor, Saiton et al discloses a radio frequency communication unit that is capable of operating over a plurality of different radio channels and analog or digital (see column 10, lines 22-29). A system is selected based on user preferences or a preprogrammed routine by the unit (see column 16, lines 32-58), which reads on the claimed, "independent globally dispersed networks into

which the mobile stations the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sainton et al to include the above use of the mobile station for receiving and selecting the system in order to provide plural omni-modal wireless products which would allow for adaptive service provider selection based on user experience with specific service providers as suggested by Sainton et al (see column 2, lines 61-65).

Regarding **claim 2**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the mobile station further comprises a main microprocessor controller and said first, second, and third processors are modules within said main microprocessor.

In a similar field of endeavor, Sainton et al discloses the use of a microprocessor 110 connected to memory 112 and operates to control the input circuitry, and memory can contain both data storage and programmable information and microprocessor selectively operates the voice processing circuitry, data processing circuitry and switches to select the appropriate transmission channel (see column 8, lines 34-47).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel et al and Bridges et al with Sainton et al to include the above use of the microprocessor in order to conserve space and allow for efficient control of the device.

Regarding **claim 5**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the use of read only memory for storing the operational capabilities of the mobile station.

In a similar field of endeavor, Sainton et al discloses the use of EEPROMs for program information and operating instructions used by the device (see column 5, lines 58 – column 6, line 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sainton et al to include the above use of EEPROM in order to have a re-programmable memory that is quickly accessed.

Regarding **claim 6**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the use of programmable read only memory for storing the operational capabilities of the mobile station.

In a similar field of endeavor, Sainton et al discloses the use of EEPROMs for program information and operating instructions used by the device (see column 5, lines 58 – column 6, line 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sainton et al to include the above use of EEPROM in order to have a re-programmable memory that is quickly accessed.

Regarding **claim 7**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the use of erasable, programmable read only memory for storing the operational capabilities of the mobile station.

In a similar field of endeavor, Sainton et al discloses the use of EEPROMs for program information and operating instructions used by the device (see column 5, lines 58 – column 6, line 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sainton et al to include the above use of EEPROM in order to have a re-programmable memory that is quickly accessed.

Regarding **claim 8**, Van den Heuvel, et al. discloses a communications operating system where a subscriber unit 20 for use in a communications system 19 may be used in multiple different available systems (see figure 1 and page 3, lines 31-34), which reads on the claimed “mobile station, configured for use as a software radio having the capability for universal adaptive use within globally dispersed cellular communication networks”. Once the unit has accessed the channel of the common communication system, it receives an indication of available communication systems (see page 4, lines 14-18), which reads on the claimed “receiving data over a common system parameter channel” and this information may provide details such as features available (see page 4, lines 18-20), which reads on the claimed “compiling and storing network characteristic data, received over said common system parameter channel, relating to the operational capabilities of said network”. Furthermore, the system uses a matrix

having features cross-referenced by subscriber unit capabilities, which reads on the claimed "combining said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities". The subscriber unit determines which system it desires to utilize based on the list of available systems, types of features available and system costs (see page 3, lines 31-36), which reads on the claimed "generating an operational configuration based on said matrix". The system disclosed by van den Heuvel, et al. fails to teach that the subscriber unit will store identification information.

In a similar field of endeavor, Bridges et al discloses a system with over the air programming where a mobile station 68 is provided with a memory device 67 for storing a Preferred System Identification List and/or Intelligent Roaming Database that indicates the band or bands where a mobile station may find a preferred system when roaming, including the system ID or system operator code corresponding to the wireless carrier the mobile station should use for wireless communication in order to obtain the services required by the subscriber (see column 9, lines 61-66), which reads on the claimed "processor for compiling and storing subscriber identification data relating to the operational capabilities of said mobile station".

It would have been obvious to one skilled in the art at the time of the invention to modify van den Heuvel, et al. with Bridges, et al. to include the above memory that stores information relating to the identification and operational of the station in order to allow the mobile station to obtain service on the cellular network with which the home cellular service provider has the best roaming agreement, and/or which supports the

services the user requires as suggested by Bridges, et al. (see Bridges, et al. column 4, lines 39-51). The combination of van den Heuvel et al and Bridges et al fails to disclose receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system and that the compilation occurs at the mobile station.

In a similar field of endeavor, Sainton et al discloses a radio frequency communication unit that is capable of operating over a plurality of different radio channels and analog or digital (see column 10, lines 22-29). A system is selected based on user preferences or a preprogrammed routine by the unit (see column 16, lines 32-58), which reads on the claimed, "independent globally dispersed networks into which the mobile stations the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel and Bridges et al with Sainton et al to include the above use of the mobile station for receiving and selecting the system in order to provide plural omni-modal wireless products which would allow for adaptive service provider selection based on user experience with specific service providers as suggested by Sainton et al (see column 2, lines 61-65).

Regarding **claim 9**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the predetermined criteria comprise at least one of cost, speed and volume of data.

In a similar field of endeavor, Sainton et al disclose that cost could be criteria for system selection (see column 16, lines 32-58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel et al and Bridges et al with Sainton et al to include the above use of cost as a criteria in order to provide the most cost effective plan for a user who is very price sensitive as suggested by Sainton et al (see column 16, line 65 – column 17, line 4).

Regarding **claim 10**, the combination of van den Heuvel et al and Bridges et al fails to expressly disclose the predetermined criteria comprise at least one of cost, speed and volume of data.

In a similar field of endeavor, Sainton et al disclose that cost could be criteria for system selection (see column 16, lines 32-58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of van den Heuvel et al and Bridges et al with Sainton et al to include the above use of cost as a criteria in order to provide the most cost effective plan for a user who is very price sensitive as suggested by Sainton et al (see column 16, line 65 – column 17, line 4).

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over van den Heuvel, et al. in view of Bridges, et al. and Sainton et al and further in view of Henry, Jr, et al. (US005603084A).

Regarding **claim 3**, the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al fails to teach that a portion of the characteristics are programmed at the time of manufacture.

In a similar field of endeavor, Henry, Jr, et al. teaches that the programming of the serial number and the initial identification number can be accomplished when the phone is manufactured (see column 4, lines 4-7), which reads on the claimed invention that a portion of said operational characteristics of said mobile station are programmed into the device at the time of manufacture.

It would have been obvious to one skilled in the art at the time of the invention to modify the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al with Henry, Jr, et al. to program the serial number during manufacturing in order to eliminate the need to use time to do that later.

Regarding **claim 4**, the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al fails to teach that a portion of the characteristics are programmed when the device is activated.

In a similar field of endeavor, Henry, Jr, et al. teaches that some information is programmed after purchase and before a user can place a call (see column 6, lines 20-41), which reads on the claimed invention that a portion of said operational capabilities of said mobile station are programmed into the device at the time of activation with a home cellular service.

It would have been obvious to one skilled in the art at the time of the invention to modify the combination of van den Heuvel, et al, Bridges, et al. and Sainton et al with

Henry, Jr, et al. to include programming at the time of activation in order to allow information that is dependent on the customer to be input into the phone, such as a credit limit.

(10) Response to Argument

Appellant's arguments:

Applicant argues that the Examiner has acknowledged Van den Huevel fails to teach that the subscriber unit will store identification information. The reference, Bridges, is cited to remedy this deficiency. The Examiner has further acknowledged that the combined teaching of Van den Huevel and Bridges fails to teach receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile station has traveled. The deficiency of Van den Huevel and Bridges are not remedied by the teaching of the newly cited reference Sainton.

However, the Examiner disagrees with the preceding arguments. Van den Heuvel teaches a transceiver for receiving data over a common system parameter channel wherein a channel of the common communication system is assigned to the subscriber unit, then the unit receives an indication of available communication systems (corresponding to network characteristic) (page 4, lines 10-19). Saiton et al is relied upon to teach independent globally dispersed networks into which the mobile stations have traveled, wherein said data is received directly without reliance on any local area network or wireline system, which is read on: a radio frequency communication unit that

is capable of operating over a plurality of different radio channels and analog or digital (see column 10, lines 22-29), and a system is selected based on user preferences or a preprogrammed routine by the unit which is capable of utilizing a plurality of wireless data services (column 16, lines 32-58).

The Applicant further argues that combining the systems of Huevel and Bridges are significantly different in operation. There is nothing in these disclosures that would encourage a person skilled in the art to pick up minor components of each reference to construct the system of this application.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case Van den Huevel, Bridges, and Sainton are in similar field of endeavor, they all have the capability to transmit and receive data over the air. Therefore, "combining Sainton with the system of Van den Huevel and Bridges to improve the system performance with a truly self adaptive omni-modal wireless product which enables end user to access conveniently various wireless services in accordance with a selection process which is sufficiently under control of the end user" would be obvious to one of ordinary skill in the art.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon

hind sight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In this case, the motivation for combining Bridges with Van den Heuvel is provided in Bridges: in order to allow the mobile station to obtain service on the cellular network with which the home cellular service provider has the best roaming agreement, and/or which supports the services the user requires as suggested by Bridges, et al. (see Bridges, et al. column 4, lines 39-51). The motivation to combine Sainton with Van den Heuvel and Bridges can be found in Sainton: in order to provide plural omni-modal wireless products which would allow for adaptive service provider selection based on user experience with specific service providers as suggested by Sainton et al (see column 2, lines 61-65).

The Applicant further argues that the rejection of claims 3 and 4 is traversed on the same basis as stated above because Henry is not sufficient to cure the deficiencies of Van den Huevel and Bridges. Given that the rejections of claims 1, 2, and 5-10 are maintained as recited in the arguments above, therefore the rejections of claims 3 and 4 are maintained for the same reasons.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted, **JEAN GELIN**
PRIMARY EXAMINER

Jean A Gelin *Jean Gelin*

January 17, 2008



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